ELSEVIER

Journal of Photochemistry and Photobiology B: Biology 37 (1997) XI

Journal of PHOTOCHEMISTRY AND PHOTOBIOLOGY B: BIOLOGY

Author Index of Volume 37

Abbas, B., 261
Abrams, M.J., 230
Aguilera, J., 196
Andrae, I., 147
Angelov, I., 154
Anton, G., 26
Atanasov, B.P., 74

Béani, J.-C., 101
Beeby, A., 267
Bellon, G., 52
Bender, K., 1
Benzie, R., 261
Berns, M.W., 91
Bilgin, M.D., 131
Björn, L.O., 212
Blattner, C., 1
Böhm, F., 147
Borel, J.-P., 52
Bossard, G.E., 230
Boyle, R., 261
Bringhen, A., 147
Brooks, R.C., 230
Bryl, K., 254
Büchel, C., 118

Cernay, Th., 219
Chaqour, B., 52
Cherepanova, E.V., 40

Darkes, M.C., 230
Degreef, H., 125
De Jode, M.L., 261
Denisov, A.Yu., 40
Dilkes, M.G., 261
Donald Forbes, P., 182
Drabent, R., 254
Dummin, H., 219

Favier, A., 101
Ferguson, J., 171
Fernandez, J.M., 131
Figueroa, F.L., 196
Flores-Moya, A., 196
Fourtanier, A., 52
Fromm, D., 151
Fukutsu, K., 154
Furusawa, Y., 154

Garab, G., 118
Garmyn, M., 125
Gibbs, N.K., 171
Gonzenbach, H., 147
Govindjee, ., 107
Grahn, M.F., 261
Gritsan, N.P., 40
Grossweiner, L.I., 131, 236
Gruszecki, W.I., 84

Haberman, H.F., 245
Häder, D.-P., 66, 196
Hadjur, C., 101
Herrlich, P., 1
Herrmann, H., 60, 66
Hill, T., 147
Holtschmidt, H., 154

Iordanov, M., 1

Jiménez, C., 196
Johnson, B.E., 171
Jori, G., 154

Karlson, B., 141
Kernen, P., 84
Kessel, D., 151
Khalili, M., 236
Klecak, G., 174
Knebel, A., 1
König, K., 91
Koshkin, A.A., 40
Kossekova, G.P., 74
Koumantakis, E., 96
Kraml, M., 60
Krupa, Z., 84
Kumar, J.R., 245

Lauter, F.-R., 203
Lebedev, A.V., 40
Lebert, M., 196
Liu, W.Q., 96

Mäkinen, M., 182
Makrigiannakis, A., 96
Markushin, Yu.Ya., 40
Martellucci, S.A., 230
Matuła, M., 84
McGuinness, A., 261
Mercado, J., 196
Michailov, N., 154
Miteva, M.A., 74
Muller, S., 154
Mulroy, L., 147
Myśliwa-Kurdziel, B., 84

Papazoglou, T.G., 96
Parat, M.-O., 101
Parker, A.W., 267
Peeva, M., 154
Persson, A., 141
Plesa, A., 26
Pollet, S., 101
Porst, M., 66

Quintern, L.E., 154

Rahmsdorf, H.J., 1
Ranadive, N.S., 245
Reddi, E., 189
Relakis, C., 96
Repanovici, R., 26
Ricchelli, F., 154
Richard, M.-J., 101
Salles, S., 196
Salmon, J.-M., 18
Santas, R., 66
Schäfer, J., 66
Schansker, G., 107
Seite, S., 52
Shopova, M., 154
Smyk, B., 254
Stanley, C.F., 267
Stenbäck, F., 182
Strzałka, K., 84

Tromberg, B.J., 91
Truscott, T.G., 147

Udal'tsov, A.V., 31
Ulbrych, K., 254
Unsöld, E., 96
Urbach, F., 169, 174
Urwyler, H., 174

Van Rensen, J.J.S., 107
Viallet, P., 18
Vigo, J., 18
Villoutreix, B.O., 74
Vollano, J.F., 230

Wängberg, S.-Å., 141
Webber, J., 151
Williams, N.S., 261
Wohrle, D., 154

Xu, C., 107

Yamashiro, C.T., 203
Yanofsky, C., 203
Yassine, M., 18
Yu, S.-G., 212

Zimmermann, H.W., 219

Elsevier Science S.A.

ELSEVIER

Journal of Photochemistry and Photobiology B: Biology 37 (1997) XIII–XVII

Journal of PHOTOCHEMISTRY AND PHOTOBIOLOGY B:BIOLOGY

Subject Index of Volume 37

Absorption spectra
  retinyl palmitate in water environment, 254
Aconidial mutant
  light stimulation of conidiation in *Neurospora crassa*: studies with the wild-type strain and mutants *wc*-1, *wc*-2 and *acon*-2, 203
Algae
  organization of the pigment molecules in the chlorophyll *a*/*c* light-harvesting complex of *Pleurochloris meiringensis* (xanthophyceae). Characterization with circular dichroism and absorbance spectroscopy, 118
  effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
Aminolevulinic acid
  plasma levels of protoporphyrin IX in humans after oral administration of 5-aminolevulinic acid, 151
Antioxidant
  zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101
Apoptosis
  zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101

B 16 pigmented melanoma
  fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154
Benzoporphyrin derivative monoacid ring A
  sensitization of photohemolysis by benzoporphyrin derivative monoacid ring A and porphyrins, 236
Bicarbonate effect
  chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Binary solvent
  retinyl palmitate in water environment, 254
Biologically weighted UV dosimetry
  characterization and application of UV detector spore films: the sensitivity curve of a new detector system provides good similarity to the action spectrum for UV-induced erythema in human skin, 154
B-photoreceptor
  time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60

Carotenoids
  organization of the pigment molecules in the chlorophyll *a*/*c* light-harvesting complex of *Pleurochloris meiringensis* (xanthophyceae). Characterization with circular dichroism and absorbance spectroscopy, 118
Cationic lipophilic photosensitizers
  selective photosensitization of mitochondria in HeLa cells by cationic Zn(II)phthalocyanines with lipophilic side-chains, 219
Caulerpa prolifera
  photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66

Elsevier Science S.A.

Cell size
  effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
Cervical malignancies
  laser-induced fluorescence detection of malignancies in the female genital tract via their natural emission and hypocrellin (HA) probing, 96
(Chloro)acetate
  chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Chlorophyll *a* fluorescence
  chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Chlorophyll fluorescence
  effect of xanthophyll pigments on fluorescence of chlorophyll *a* in LHC II embedded to liposomes, 84
Chlorophyta
  photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66
Chloroplast movement
  time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60
Collagen
  all-*trans*-retinoic acid enhances collagen gene expression in irradiated and non-irradiated hairless mouse skin, 52
Collagenase
  all-*trans*-retinoic acid enhances collagen gene expression in irradiated and non-irradiated hairless mouse skin, 52
Conidiation
  light stimulation of conidiation in *Neurospora crassa*: studies with the wild-type strain and mutants *wc*-1, *wc*-2 and *acon*-2, 203
Corallina elongata
  effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
C-SNARF-1
  C-SNARF-1 as a pHi fluoroprobe: discrepancies between conventional and intracellular data do not result from protein interactions, 18
Cultured cells
  intracellular uptake, absorption spectrum and stability of the bacteriochlorin photosensitizer 5,10,15,20-tetrakis(*m*-hydroxyphenyl)bacteriochlorin (mTHPBC). Comparison with 5,10,15,20-tetrakis(*m*-hydroxyphenyl)chlorin (mTHPC), 261
Cytokines
  comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal, 245

D1–D2 mutants
  chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Desensitization
  comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal, 245

Dinoflagellates
effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
Dinophyta
effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
DNA
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101
DNA strand breaks
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101
Donor–acceptor complexes
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31

Electron microscopy
selective photosensitization of mitochondria in HeLa cells by cationic Zn(II)phthalocyanines with lipophilic side-chains, 219
Electron transfer
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31
Electrostatic potentials
local electrostatic potentials in pyridoxal phosphate labelled horse heart cytochrome *c*, 74

Fluence rate
fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154
Fluorescence properties
retinyl palmitate in water environment, 254
Fluorophobe
C-SNARF-1 as a pHi fluoroprobe: discrepancies between conventional and intracellular data do not result from protein interactions, 18
Fluoroquinolone antibacterials
fluoroquinolone antibacterials enhance UVA-induced skin tumors, 174

Gene expression
suppression of UVB-induced *c-fos* and *c-jun* expression in human keratinocytes by *N*-acetylcysteine, 125
Gene transcription
UV-induced signal transduction, 1

Hematoporphyrin IX
sensitization of photohemolysis by benzoporphyrin derivative monoacid ring A and porphyrins, 236
Hypocrellin (HA)
laser-induced fluorescence detection of malignancies in the female genital tract via their natural emission and hypocrellin (HA) probing, 96

IRPA recommendations
characterization and application of UV detector spore films: the sensitivity curve of a new detector system provides good similarity to the action spectrum for UV-induced erythema in human skin, 154

Keratinocyte
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101
Keratinocytes
suppression of UVB-induced *c-fos* and *c-jun* expression in human keratinocytes by *N*-acetylcysteine, 125

Laser-induced fluorescence
laser-induced fluorescence detection of malignancies in the female genital tract via their natural emission and hypocrellin (HA) probing, 96
Laser photodynamic therapy
fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154
LHC II
effect of xanthophyll pigments on fluorescence of chlorophyll *a* in LHC II embedded to liposomes, 84
Light effects
light stimulation of conidiation in *Neurospora crassa*: studies with the wild-type strain and mutants *wc*-1, *wc*-2 and *acon*-2, 203
Light-harvesting complex II
organization of the pigment molecules in the chlorophyll *a*/*c* light-harvesting complex of *Pleurochloris meiringensis* (xanthophyceae). Characterization with circular dichroism and absorbance spectroscopy, 118
Liposomes
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189
Long wavelength absorbing sensitizer
fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154
Low-density lipoproteins
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189

Macromolecular environment
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31
Mesoporphyrins
intracellular uptake, absorption spectrum and stability of the bacteriochlorin photosensitizer 5,10,15,20-tetrakis(*m*-hydroxyphenyl)bacteriochlorin (mTHPBC). Comparison with 5,10,15,20-tetrakis(*m*-hydroxyphenyl)chlorin (mTHPC), 261
Mesotaenium
time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60
Minimal erythemal dose
characterization and application of UV detector spore films: the sensitivity curve of a new detector system provides good similarity to the action spectrum for UV-induced erythema in human skin, 154
Mitochondria in HeLa cells
selective photosensitization of mitochondria in HeLa cells by cationic Zn(II)phthalocyanines with lipophilic side-chains, 219
Molecular modelling
local electrostatic potentials in pyridoxal phosphate labelled horse heart cytochrome *c*, 74
Monoazidoethidium derivatives
azidoethidium derivatives as photoaffinity labels: study of the photochemistry of the monoazidoethidium derivatives in water, 40
Monoclonal antibodies
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189
Mycosporine-like amino acids
effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141

N-acetylcysteine
suppression of UVB-induced *c-fos* and *c-jun* expression in human keratinocytes by *N*-acetylcysteine, 125

NADH
time-resolved and steady-state fluorescence measurements of β-nicotinamide adenine dinucleotide–alcohol dehydrogenase complex during UVA exposure, 91
Naphthalocyanine
fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154
Naphthalocyanines
the synthesis and in vitro photodynamic activity of a series of novel ruthenium(II)-2,3-naphthalocyanines, 230

Oligonucleotide derivatives
azidoethidium derivatives as photoaffinity labels: study of the photochemistry of the monoazidoethidium derivatives in water, 40
Oxygen evolution
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
Oxygen measurements
photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66

PAM fluorescence
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
pH 2.3 plasmid DNA transformation efficiency
transformation of *Escherichia coli* cells by pH 2.3 plasmid DNA treated with psoralens plus near-UV light, 26
Pharmacokinetics
plasma levels of protoporphyrin IX in humans after oral administration of 5-aminolevulinic acid, 151
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189
Phosphorescence
elimination of fluorescence contributions to singlet oxygen measurements using a novel electronic switch, 267
Photoactivation
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31
Photobleaching
the synthesis and in vitro photodynamic activity of a series of novel ruthenium(II)-2,3-naphthalocyanines, 230
Photochemical carcinogens
quinolone antibacterials: a new class of photochemical carcinogens, 182
Photochemotherapy
intracellular uptake, absorption spectrum and stability of the bacteriochlorin photosensitizer 5,10,15,20-tetrakis(*m*-hydroxyphenyl)bacteriochlorin (mTHPBC). Comparison with 5,10,15,20-tetrakis(*m*-hydroxyphenyl)chlorin (mTHPC), 261
Photodynamic action
singlet oxygen generation by photodynamic agents, 131
Photodynamic effect
selective photosensitization of mitochondria in HeLa cells by cationic Zn(II)phthalocyanines with lipophilic side-chains, 219
Photodynamic therapy
plasma levels of protoporphyrin IX in humans after oral administration of 5-aminolevulinic acid, 151
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189
the synthesis and in vitro photodynamic activity of a series of novel ruthenium(II)-2,3-naphthalocyanines, 230
Photohemolysis
sensitization of photohemolysis by benzoporphyrin derivative monoacid ring A and porphyrins, 236
Photoinhibition
photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
Photolysis
azidoethidium derivatives as photoaffinity labels: study of the photochemistry of the monoazidoethidium derivatives in water, 40
Photo-oxidation
time-resolved and steady-state fluorescence measurements of β-nicotinamide adenine dinucleotide–alcohol dehydrogenase complex during UVA exposure, 91
Photoprotection
a UVA filter (4-*tert*-butyl-4′-methoxydibenzoylmethane): photoprotection reflects photophysical properties, 147
Photosensitization
singlet oxygen generation by photodynamic agents, 131
Photosensitizers
role of delivery vehicles for photosensitizers in the photodynamic therapy of tumours, 189
Photosynthesis
organization of the pigment molecules in the chlorophyll *a*/*c* light-harvesting complex of *Pleurochloris meiringensis* (xanthophyceae). Characterization with circular dichroism and absorbance spectroscopy, 118
Photosystem II
chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Phototoxicity
fluoroquinolone antibacterials enhance UVA-induced skin tumors, 174
pH-sensitive optical label
local electrostatic potentials in pyridoxal phosphate labelled horse heart cytochrome *c*, 74
Phthalocyanine
elimination of fluorescence contributions to singlet oxygen measurements using a novel electronic switch, 267
Phytochrome
time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60
Phytoplankton
effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
Pigment content
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
Polymorphonuclear cell accumulation
comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal, 245
Porphyrin associates
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31
Protein interaction
C-SNARF-1 as a pHi fluoroprobe: discrepancies between conventional and intracellular data do not result from protein interactions, 18
Protein phosphorylation
effects of UVB radiation on light-dependent and light-independent protein phosphorylation in thylakoid proteins, 212
Protoporphyrin IX
plasma levels of protoporphyrin IX in humans after oral administration of 5-aminolevulinic acid, 151
sensitization of photohemolysis by benzoporphyrin derivative monoacid ring A and porphyrins, 236
Psoralens
transformation of *Escherichia coli* cells by pH 2.3 plasmid DNA treated with psoralens plus near-UV light, 26

Pulse amplitude modulation fluorescence
photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66
PUVA
transformation of *Escherichia coli* cells by pH 2.3 plasmid DNA treated with psoralens plus near-UV light, 26
Pyridoxal phosphate modified cytochrome *c*
local electrostatic potentials in pyridoxal phosphate labelled horse heart cytochrome *c*, 74

Q_A^- reoxidation
chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Quantum chemical calculations
azidoethidium derivatives as photoaffinity labels: study of the photochemistry of the monoazidoethidium derivatives in water, 40
Quantum yield
azidoethidium derivatives as photoaffinity labels: study of the photochemistry of the monoazidoethidium derivatives in water, 40
Quinolone antibacterials
quinolone antibacterials: a new class of photochemical carcinogens, 182
Quinolone antibiotics
quinolone antibiotic with potential to photosensitize skin tumorigenesis, 171

Red–blue interaction
time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60
Respiratory activity
selective photosensitization of mitochondria in HeLa cells by cationic Zn(II)phthalocyanines with lipophilic side-chains, 219
Retinoic acid
all-*trans*-retinoic acid enhances collagen gene expression in irradiated and non-irradiated hairless mouse skin, 52
Retinoid solubility
retinyl palmitate in water environment, 254
Retinyl palmitate
retinyl palmitate in water environment, 254
Rhodophyta
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
Ruthenium
the synthesis and in vitro photodynamic activity of a series of novel ruthenium(II)-2,3-naphthalocyanines, 230

Self-organization
retinyl palmitate in water environment, 254
Sensitized photoreduction
characteristics of donor–acceptor complexes formed in porphyrin–polymer systems and their photoactivation in electron transfer photoreaction, 31
Signal transduction
UV-induced signal transduction, 1
Signal transduction chain
time-dependent formation of Pfr-mediated signals for the interaction with blue light in *Mesotaenium* chloroplast orientation, 60
Singlet molecular oxygen
singlet oxygen generation by photodynamic agents, 131
Singlet oxygen
elimination of fluorescence contributions to singlet oxygen measurements using a novel electronic switch, 267
Skin tumorigenesis
quinolone antibiotic with potential to photosensitize skin tumorigenesis, 171
Solar radiation
photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66
effects of solar radiation on the photosynthetic activity of the red alga *Corallina elongata* Ellis et Soland, 196
Spectrophotometry
intracellular uptake, absorption spectrum and stability of the bacteriochlorin photosensitizer 5,10,15,20-tetrakis(*m*-hydroxyphenyl)bacteriochlorin (mTHPBC). Comparison with 5,10,15,20-tetrakis(*m*-hydroxyphenyl)chlorin (mTHPC), 261
(Spinach chloroplast)
chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Spore film
characterization and application of UV detector spore films: the sensitivity curve of a new detector system provides good similarity to the action spectrum for UV-induced erythema in human skin, 154
Sunscreen
a UVA filter (4-*tert*-butyl-4′-methoxydibenzoylmethane): photoprotection reflects photophysical properties, 147

Thermoluminescence
chloroacetates as inhibitors of Photosystem II: Effects on electron acceptor side, 107
Thylakoid proteins
effects of UVB radiation on light-dependent and light-independent protein phosphorylation in thylakoid proteins, 212
Time-resolved fluorescence
time-resolved and steady-state fluorescence measurements of β-nicotinamide adenine dinucleotide–alcohol dehydrogenase complex during UVA exposure, 91
Toxicity
the synthesis and in vitro photodynamic activity of a series of novel ruthenium(II)-2,3-naphthalocyanines, 230
TPEN
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101
Transcription factors
UV-induced signal transduction, 1
Tumour temperature
fluence rate effects on photodynamic therapy of B16 pigmented melanoma, 154

Ultraviolet radiation
photosynthesis of the mediterranean green alga *Caulerpa prolifera* measured in the field under solar irradiation, 66
effects of UV-B radiation on synthesis of mycosporine-like amino acid and growth in *Heterocapsa triquetra* (Dinophyceae), 141
Uroporphyrin I
sensitization of photohemolysis by benzoporphyrin derivative monoacid ring A and porphyrins, 236
UVA
time-resolved and steady-state fluorescence measurements of β-nicotinamide adenine dinucleotide–alcohol dehydrogenase complex during UVA exposure, 91
UVA filter
a UVA filter (4-*tert*-butyl-4′-methoxydibenzoylmethane): photoprotection reflects photophysical properties, 147
UVA-induced skin tumours
fluoroquinolone antibacterials enhance UVA-induced skin tumors, 174
UVB
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101

suppression of UVB-induced *c-fos* and *c-jun* expression in human keratinocytes by *N*-acetylcysteine, 125
UVB irradiation
all-*trans*-retinoic acid enhances collagen gene expression in irradiated and non-irradiated hairless mouse skin, 52
UVB protection
a UVA filter (4-*tert*-butyl-4′-methoxydibenzoylmethane): photoprotection reflects photophysical properties, 147
UVB radiation
effects of UVB radiation on light-dependent and light-independent protein phosphorylation in thylakoid proteins, 212
UV irradiation
UV-induced signal transduction, 1
Vascular permeability
comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal, 245
Xanthophyll cycle
effect of xanthophyll pigments on fluorescence of chlorophyll *a* in LHC II embedded to liposomes, 84
Xanthophyll pigments
effect of xanthophyll pigments on fluorescence of chlorophyll *a* in LHC II embedded to liposomes, 84
Zinc
zinc and DNA fragmentation in keratinocyte apoptosis: its inhibitory effect in UVB irradiated cells, 101